

WHAT IS CLAIMED IS:

1. A method for providing Internet access to a first computer via a first one of a plurality of network access nodes in a network using a plurality of globally unique IP

5 addresses, the network access nodes each having a network address associated therewith which is unique on the network, the first network access node having a first network address associated therewith, the method comprising:

associating the first network address with the first computer while the first computer is connected to the first network access node thereby providing access to the network;

10 associating a first one of the globally unique IP addresses with the first network address for conducting an Internet transaction;

monitoring transmissions associated with the Internet transaction to determine address information;

processing the transmissions in response to the address information; and

15 disassociating the first globally unique IP address from the first network address upon termination of the Internet transaction, the first globally unique IP address then being available for association with any of the network addresses.

2. The method of claim 1 wherein the first computer has an internal IP address
20 and associating the first network address with the first computer comprises translating the internal IP address of the first computer to the first network address.

3. The method of claim 1 wherein the first computer does not have an internal IP address and associating the first network address with the first computer comprises assigning

the first network address to the first computer.

4. The method of claim 1 wherein associating the first globally unique IP address with the first computer comprises employing a network address translation protocol.

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5. The method of claim 4 wherein the plurality of globally unique IP addresses comprises a pool comprising one of a plurality of class A, a plurality of class B, or a plurality of class C IP addresses.

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6. The method of claim 1 wherein the network comprises a local area network and the associating and disassociating of the first globally unique IP address is done by a headend associated with the local area network.

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7. The method of claim 1 wherein the network comprises a wide area network and the associating and disassociating of the first globally unique IP address is done by a remote server on the wide area network.

8. The method of claim 1 wherein associating the first network address with the first computer is done by the first network access node.

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9. The method of claim 1 wherein portions of the network comprise a single pair of conductors, the method further comprising transmitting half duplex data and standard telephone signals substantially simultaneously over the single pair of conductors.

10. The method of claim 9 wherein transmitting the half duplex data comprises transmitting the half duplex data at a first frequency which is significantly higher than a second frequency at which the standard telephone signals are transmitted.

5 11. The method of claim 1 wherein monitoring and processing the transmissions is done by the first network access node.

12. The method of claim 1 wherein monitoring the transmissions comprises parsing an HTML string associated with the transmissions.

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13. The method of claim 1 wherein monitoring the transmissions comprises monitoring network layer information associated with the transmissions.

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14. The method of claim 1 wherein monitoring the transmissions comprises monitoring any of a plurality of network communication protocol layers associated with the transmissions.

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15. The method of claim 1 wherein processing the transmissions comprises associating an affiliate tag with the transmissions where the transmissions correspond to an affiliate.

16. The method of claim 15 wherein associating the affiliate tag comprises appending the affiliate tag to an HTML string associated with the transmissions.

17. The method of claim 1 wherein processing the transmissions comprises generating content for presentation on the first computer.

18. The method of claim 17 wherein the transmissions relate to a first entity, the content also relating to the first entity.

19. The method of claim 17 wherein the transmissions relate to a first entity, the content relating to a second entity in competition with the first entity.

20. The method of claim 17 further comprising presenting the content on the first computer in a pop-up window.

21. The method of claim 17 further comprising presenting the content on the first computer in a frame around at least one HTML page corresponding to the transmissions.

22. The method of claim 1 wherein processing the transmissions comprises redirecting the transmissions to a server to be processed.

23. The method of claim 22 wherein processing the transmissions comprises framing HTML pages to be presented on the first computer.

24. The method of claim 22 wherein processing the transmission comprises generating a pop-up window to be presented with HTML pages on the first computer.

25. A method for providing access to a network via a first one of a plurality of network access nodes in the network, the network access nodes each having a network address associated therewith which is unique on the network, the first network access node having a first network address associated therewith, the method comprising:

- 5 associating the first network address with a first computer while the first computer is connected to the first network access node thereby providing access to the network;
- monitoring transmissions associated with the first computer to determine address information; and
- processing the transmissions in response to the address information.

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26. The method of claim 25 wherein the first computer has an internal IP address and associating the first network address with the first computer comprises translating the internal IP address of the first computer to the first network address.

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27. The method of claim 25 wherein the first computer does not have an internal IP address and associating the first network address with the first computer comprises assigning the first network address to the first computer.

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28. The method of claim 25 wherein the network comprises a local area network and the associating is done by a headend associated with the local area network.

29. The method of claim 25 wherein the network comprises a wide area network and the associating is done by a remote server which controls the wide area network.

30. The method of claim 25 wherein the associating is done by the first network access node.

31. The method of claim 25 wherein portions of the network comprise a single pair of conductors, the method further comprising transmitting half duplex data and standard telephone signals substantially simultaneously over the single pair of conductors.

32. The method of claim 31 wherein transmitting the half duplex data comprises transmitting the half duplex data at a first frequency which is significantly higher than a second frequency at which the standard telephone signals are transmitted.

33. The method of claim 25 wherein monitoring and processing the transmissions is done by the first network access node.

34. The method of claim 25 wherein monitoring the transmissions comprises parsing an HTML string associated with the transmissions.

35. The method of claim 25 wherein monitoring the transmissions comprises monitoring network layer information associated with the transmissions.

36. The method of claim 25 wherein monitoring the transmissions comprises monitoring any of a plurality of network communication protocol layers associated with the transmissions.

37. The method of claim 25 wherein processing the transmissions comprises associating an affiliate tag with the transmissions where the transmissions correspond to an affiliate.

5 38. The method of claim 37 wherein associating the affiliate tag comprises appending the affiliate tag to an HTML string associated with the transmissions.

39. The method of claim 25 wherein processing the transmissions comprises generating content for presentation on the first computer.

10 40. The method of claim 39 wherein the transmissions relate to a first entity, the content also relating to the first entity.

41. The method of claim 39 wherein the transmissions relate to a first entity, the
15 content relating to a second entity in competition with the first entity.

42. The method of claim 39 further comprising presenting the content on the first computer in a pop-up window.

20 43. The method of claim 39 further comprising presenting the content on the first computer in a frame around at least one HTML page corresponding to the transmissions.

44. The method of claim 25 wherein processing the transmissions comprises redirecting the transmissions to a server to be processed.

45. The method of claim 44 wherein processing the transmissions comprises framing HTML pages to be presented on the first computer.

5 46. The method of claim 44 wherein processing the transmission comprises generating a pop-up window to be presented with HTML pages on the first computer.

47. A method for providing Internet access to a first computer via a first one of a plurality of network access nodes in a plurality of networks using a plurality of globally
10 unique IP addresses, the network access nodes each having a network address associated therewith which is unique among the plurality of networks, the first network access node having a first network address associated therewith, the method comprising:

interconnecting the plurality of networks with a remote server thereby forming a wide area network, the globally unique IP addresses being associated with the remote server;

15 associating the first network address with the first computer while the first computer is connected to the first network access node;

associating a first one of the globally unique IP addresses with the first network address for conducting an Internet transaction;

20 monitoring transmissions associated with the Internet transaction to determine address information;

processing the transmissions in response to the address information; and

disassociating the first globally unique IP address from the first network address upon termination of the Internet transaction, the first globally unique IP address then being available for association with any of the network addresses.

48. A method for providing access to a plurality of networks via a first one of a plurality of network access nodes in the plurality of networks, the network access nodes each having a network address associated therewith which is unique among the plurality of
5 networks, the first network access node having a first network address associated therewith, the method comprising:

interconnecting the plurality of networks with a remote server thereby forming a wide area network;

10 associating the first network address with a first computer while the first computer is connected to the first network access node thereby providing access to the wide area network;

monitoring transmissions associated with the first computer to determine address information; and

15 processing the transmissions in response to the address information.

49. A network comprising:

a plurality of network access nodes each having a network address associated therewith which is unique on the network, each network access node including a processor which is operable to associate the associated network address with a computer connected
20 thereto, thereby providing access to the network for the computer, each processor further being operable to monitor transmissions associated with the computer to determine address information, and process the transmissions in response to the address information; and

a headend module for interconnecting the network access nodes.

50. A wide area network comprising:

a plurality of networks each comprising a plurality of network access nodes, each network access node having a network address associated therewith which is unique among the plurality of networks, each network access node including a processor which is operable
5 to associate the associated network address with a computer connected thereto, thereby providing access to the wide area network for the computer, each processor further being operable to monitor transmissions associated with the computer to determine address information, and process the transmissions in response to the address information; and

a remote server for interconnecting the plurality of networks into the wide area
10 network.

51. A network access node for providing access to a network of which the network access node is a part, the network access node having a network address associated therewith which is unique on the network, the network access node comprising connection
15 circuitry and a processor, the processor being operable to associate the network address with a computer while the computer is connected to the network access node via the connection circuitry thereby providing access to the network, each processor further being operable to monitor transmissions associated with the computer to determine address information, and process the transmissions in response to the address information.

20 52. The network access node of claim 51 wherein a portion of the network connected to the network access node comprises a single pair of conductors, the network access node comprising transmission circuitry for transmitting and receiving half duplex data and standard telephone signals substantially simultaneously over the single pair of conductors.

53. The network access node of claim 52 wherein the transmission circuitry is operable to transmit and receive the half duplex at a first frequency which is significantly higher than a second frequency at which the standard telephone signals are transmitted.

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54. The network access node of claim 51 wherein the connection circuitry comprises first connection circuitry configured to connect with a standard telephone jack, an RJ-11 port for connecting to a telephone, and an Ethernet port.

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55. The network access node of claim 54 wherein the connection circuitry further comprises a universal serial bus (USB) port, the network access node being operable to convert signals received via the USB port to Ethernet signals for transmission according to the home Phone-line Networking Alliance standard.

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56. The network access node of claim 54 wherein the connection circuitry further comprises a digital data port for receiving any of digital audio signals, video signals, and information services data.

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57. The network access node of claim 51 wherein the computer has an internal IP address, and wherein the processor is operable to associate the network address with the computer by translating the internal IP address of the computer to the network address.

58. The network access node of claim 51 wherein the computer does not have an internal IP address, and wherein the processor is operable to associate the network address

with the computer by assigning the network address to the computer.

59. The network access node of claim 51 wherein the processor is operable to monitor the transmissions by parsing an HTML string associated with the transmissions.

60. The network access node of claim 51 wherein the processor is operable to monitor the transmissions by monitoring network layer information associated with the transmissions.

61. The network access node of claim 51 wherein the processor is operable to monitor the transmissions by monitoring any of a plurality of network communication protocol layers associated with the transmissions.

62. The network access node of claim 51 wherein the processor is operable to process the transmissions by associating an affiliate tag with the transmissions where the transmissions correspond to an affiliate.

63. The network access node of claim 62 wherein the processor is operable to associate the affiliate tag by appending the affiliate tag to an HTML string associated with the transmissions.

64. The network access node of claim 51 wherein the processor is operable to process the transmissions by generating content for presentation on the computer.

65. The network access node of claim 64 wherein the transmissions relate to a first entity, the content also relating to the first entity.

66. The network access node of claim 64 wherein the transmissions relate to a first
5 entity, the content relating to a second entity in competition with the first entity.

67. The network access node of claim 64 wherein the processor is further operable to present the content on the computer in a pop-up window.

10 68. The network access node of claim 64 wherein the processor is further operable to present the content on the computer in a frame around at least one HTML page corresponding to the transmissions.

15 69. The network access node of claim 51 wherein the processor is operable to process the transmissions by redirecting the transmissions to a server to be processed.